

DECADE BAND TAPERED SLOT ANTENNA,
AND METHOD OF MAKING SAME

ABSTRACT OF THE DISCLOSURE

An antenna apparatus (10) includes an antenna element (12, 412, 512) that has conductive material with a recess therein. The recess includes a balun hole (36, 536), and a tapered slot (37, 537) communicating at its narrow end with the balun hole. The balun hole is approximately rectangular, has a peripheral edge defined by conductive material, and contains air. The tapered slot has a shape which is optimized as a function of factors that include the balun hole design. Each slot edge follows a predetermined curve other than a first-order exponential curve.